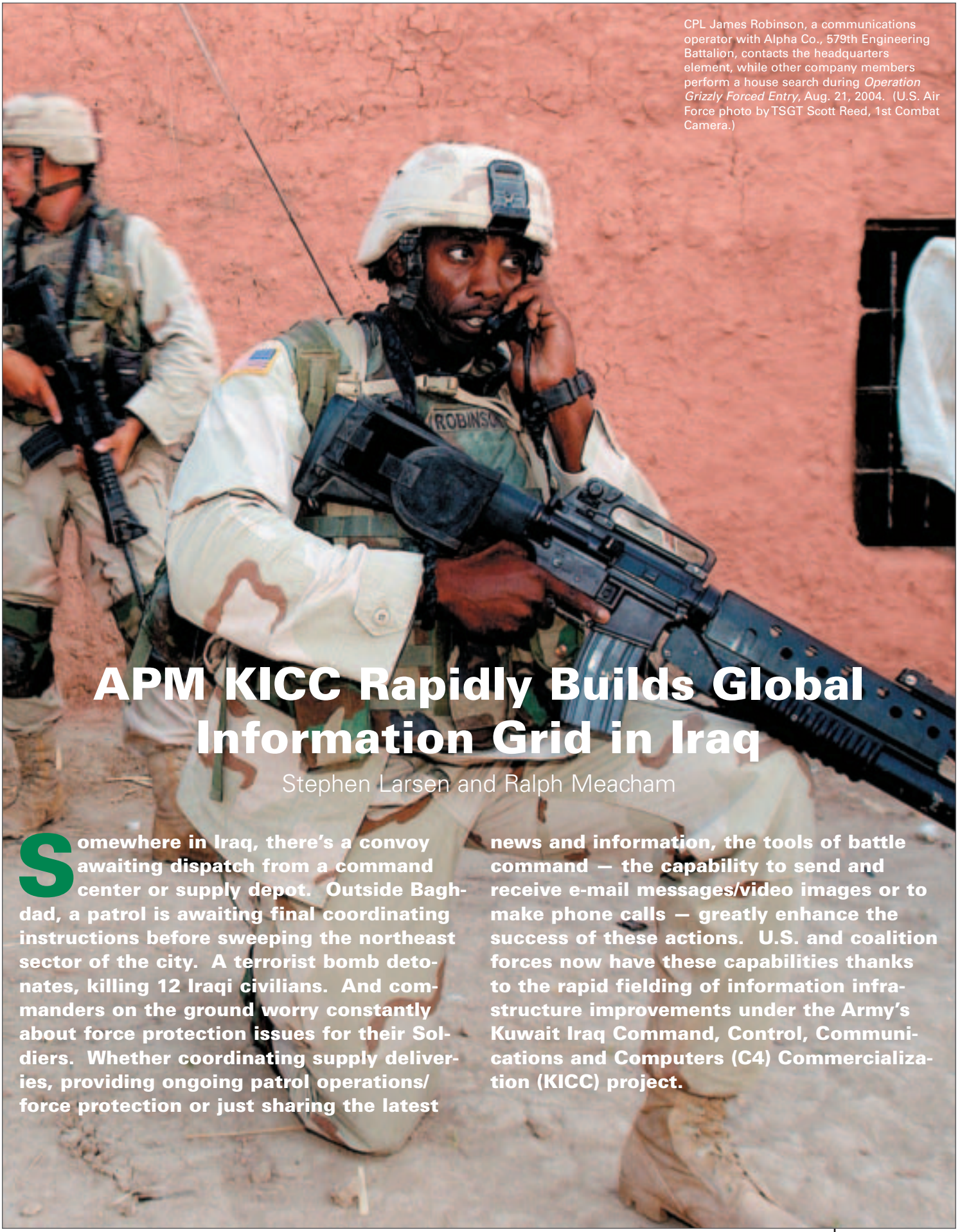

CPL James Robinson, a communications operator with Alpha Co., 579th Engineering Battalion, contacts the headquarters element, while other company members perform a house search during *Operation Grizzly Forced Entry*, Aug. 21, 2004. (U.S. Air Force photo by TSGT Scott Reed, 1st Combat Camera.)

APM KICC Rapidly Builds Global Information Grid in Iraq

Stephen Larsen and Ralph Meacham

Somewhere in Iraq, there's a convoy awaiting dispatch from a command center or supply depot. Outside Baghdad, a patrol is awaiting final coordinating instructions before sweeping the northeast sector of the city. A terrorist bomb detonates, killing 12 Iraqi civilians. And commanders on the ground worry constantly about force protection issues for their Soldiers. Whether coordinating supply deliveries, providing ongoing patrol operations/force protection or just sharing the latest news and information, the tools of battle command — the capability to send and receive e-mail messages/video images or to make phone calls — greatly enhance the success of these actions. U.S. and coalition forces now have these capabilities thanks to the rapid fielding of information infrastructure improvements under the Army's Kuwait Iraq Command, Control, Communications and Computers (C4) Commercialization (KICC) project.

Some of the team implementing the KICC project (clockwise, from lower left): COL Lee Price, PM DCATS; Alan Church, contractor with Information Systems Support; LTC John Saenz, Liaison Officer with CFLCC; Pete Cryan, contractor with Lockheed Martin Corp.; LTC Joseph Schafer, APM KICC; (center) Betsy Hermes, Army Materiel Command Communications Security Logistics Activity. (U.S. Army photo.)

Since being established in June 2003, the Army's Assistant Project Manager (APM) for KICC has rapidly moved to establish the Global Information Grid (GIG)-compatible information infrastructure and bring commercial C4 systems to support both expeditionary and enduring presence requirements.

Leading the Communications 'Fight'

The KICC project is based on the 335th Theater Signal Command leadership's vision, which its Commander, MG Lowell Detamore, said is leading the communications fight as a deployed C4I enabler, providing battle command, requirements validation and engineering support as well as direct coordination and prioritization of warfighter communications resources.

"Our commercialization efforts provide reliable networks to our Army at war and represent one of the largest projects ever undertaken by a Theater Signal Command," explained Detamore. "The end-state objective is to reduce the tactical signal force structure while increasing C4 connectivity, data throughput and global reach. Simultaneously, we are enhancing responsiveness and 'upgunning' our total coalition, Joint and expeditionary communications capability, from echelon-above-corps to the foxhole," he said.

Detamore stated that APM KICC's efforts represent a part of his command's goal of a "single PM" for its enterprise network as the Coalition Forces Land Component Command (CFLCC)/U.S. Army Forces Central Command (ARCENT) portion of the U.S. Central Command's (CENTCOM) GIG joint enterprise, supporting U.S. and coalition land forces "on the tip of the spear in Southwest Asia."

Driving the KICC project are requirements from CFLCC, Third U.S. Army/ARCENT and CENTCOM. The original requirements document called for commercializing 169 C4 nodes in Kuwait and Iraq, which were needed to provide commercial Defense Information System Network services down to brigade/battalion level operating from longer-term base camps.

"Our intent was to allow redeployment of selected tactical communication units and equipment and to provide increased communications capability in Kuwait and Iraq," remarked COL Mike Bianchi of the CFLCC Deputy C-6 (Project Coordination Cell). "We have made good progress with allocated funds to directly relieve selected tactical signal units and have begun to enhance theater network and services at longer-term bases in Iraq. We're looking forward to continuing our efforts as the Army allocates additional funds."

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Toward that end, CFLCC C-6 has instituted a process to better synchronize its commercialization efforts by organizing into four C4 Battle Operating Systems (BOS): operations, engineering, resources and operations and maintenance (O&M).

"These four areas are synchronized each week based on the specific sites of interest," Bianchi continued. "APM KICC is represented in the Resources BOS, but is tied to its overall commercialization effort in CFLCC for all C4 BOS. The CFLCC Deputy C-6 (Project Coordination Cell) is leading this synchronization effort."

APM KICC Team 'Hit the Ground Running'

LTC Joseph Schafer, APM KICC for the PM Defense Communications and Army Transmission Systems, said his team hit the ground running in Southwest Asia.

"Within 60 days of receiving acquisition approvals, we expedited C4 equipment delivery to the theater, which was the first step toward relieving deployed signal units," said Schafer. "This expedited communications support relieved approximately a brigade's worth of commercial C4 capabilities for the theater including satellite, microwave, telephone switching and multiplexing systems."

Schafer expected to complete this project's phase by September 2004, and points out that it's already reaped benefits in relieving hundreds of tactical signal brigade Soldiers — the equivalent of two signal battalions — so they could be redeployed for other missions.

On Feb. 18, 2004, the bulk of the 11th Signal Brigade Thunderbirds returned home and uncased their colors in front of a large, joyful crowd of family and friends at Fort Huachuca, AZ, despite the Soldiers having arrived home shortly after midnight. "These Soldiers had served as the local 'Ma Bell' for U.S. and coalition forces in Iraq, manning all of our telecommunications equipment there," Schafer explained. "That's kind of like swatting a fly with a sledgehammer. These Soldiers have unique, highly specialized capabilities that the Army needs employed elsewhere."

Schafer said that concurrent with the expedited equipment delivery, APM KICC continued the planning and engineering support for infrastructure capability improvements at major enduring presence locations in both Kuwait and Iraq. These efforts will put into place in Iraq a 155-megabit-per-second terrestrial transmission network and associated terminating multiplexing systems that will approximately double the existing intratheater transmission capacities among major headquarters locations — at significantly reduced recurring costs compared to satellite systems currently supporting these users.

These telephone capabilities will provide an approximately 80-percent increase in phone capacity within the next 12 months, with potential to triple subscriber service capacities.

APM KICC is also managing the implementation of commercial-based battle command-capable telephone systems and associated cable plants, supported by the PM for Defense Communications and Army Switched Systems (DCASS), to provide the connectivity's "last mile." "These telephone capabilities will provide an approximately 80-percent increase in phone capacity within the next 12 months," said Schafer, "with potential to triple subscriber service capacities."

SGT Tim Murdoch of the 11th Signal Brigade Thunderbirds returns home to his wife Melanie and daughter Paige. (U.S. Army photo by SGT Kristi Jaeger.)

Coalition Network Meets Requirements of TCA

APM KICC is delivering a network for coalition forces that will meet Transformational Communications Architecture (TCA) requirements — an overall joint communications concept that aims to provide data connectivity to all echelons of the force through the Coalition Multinational Division Network (CMN).

"The CMN is another noteworthy example of leveraging commercial C4 technical solutions to meet operational user needs," Schafer explained. "The network employs a Time Division Multiple Access/Demand Assigned Multiple Access solution that will provide coalition partner units with a robust voice and data network — permitting both legacy analog and digital services to operate seamlessly across the same network and provide end-to-end interoperability capabilities across the GIG."

"Our employment of bandwidth-on-demand technology and network management capabilities will significantly reduce recurring costs for both bandwidth and O&M services," Schafer continued, "compared to costs associated with current hub-spoke technical solutions."

Schafer further noted that APM KICC's success in bringing together industry and other supporting project managers — such as PM DCASS, along with the PM Warfighter Information Network-Tactical and the PM Tactical Radio Communications Systems — to provide comprehensive commercial C4 services has garnered significant interest from other users needing similar capabilities. APM KICC is providing multiplexers, telecommunications switching systems, Deployable Ku-Band Earth Terminals and technical control facilities at various locations in Iraq for the U.S. Marine Corps.

> Our Soldiers, Marines and civilians are dedicated members of a vital team, leading the way as part of Army transformation to coalition, Joint, network-centric, interoperable, knowledge-based warfare. Our goal is not just information superiority, but decision superiority for the warfighter.

APM KICC's large in-theater presence of more than 100 Soldiers, civilians and contractors with expertise in project management, engineering, logistics and implementation personnel, located at four facilities in Kuwait and Iraq, makes this service support possible. Among the critical players are the U.S. Army Communications-Electronics Command, the U.S. Army Information Systems Engineering Command (ISEC), Computer Sciences Corp., Galaxy Scientific Corp., Information Systems Support, Signal Solutions and Lockheed Martin Corp.

"We're bringing the other PMs and users the ability to quickly leverage the KICC in-theater presence," Schafer mentioned. "Our goal is to provide the Army, coalition and Joint communities with a stable, cost-efficient, interoperable and sustainable C4 system that will minimize stovepipe systems in-theater and greatly lower recurring life-cycle costs."

"Our Soldiers, Marines and civilians are dedicated members of a vital team, leading the way as part of Army transformation to coalition, Joint, network-centric, interoperable, knowledge-based warfare. Our goal is not just information superiority, but decision superiority for the warfighter," Detamore concluded.

A Soldier from Alpha Co., 1st Battalion, 14th Infantry Regiment (Light), 25th Infantry Division out of Schofield Barracks, HI, watches for enemy movement while his unit conducts search and seizure operations on Oct. 1, 2004, and Iraqi forces launched *Operation Baton Rouge*, a major offensive against the anti-Iraqi forces inside Samarra, Iraq. (U.S. Army photo by SSGT Klaus Baesu.)

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